MINERvA OPERATION REPORT

Marianette Wospakrik

AEM, August 4th 2014

FEB Failure and Replacement

- On July 31st, DAQ stopped running due to a frame status error on an FEB on Crate 1, Croc 3, Chain 2 (on the west side).
  - We readout multiple FEBs in a daisy chain so that if one FEB in the chain fails the readout stops.
- When FEBs are working, they have 2 green lights. In all instances of hardware failure that we've seen so far - if FEBs are not working, they will show 1 green light or show a red light.
  - All FEBs in chain had 2 green lights.
- We power cycled the power supply of that chain and instead of slow control showing some missing FEBs, the entire chain could not be found.
- At this point, we decided to replace the individual FEBs one at a time to try to fix the problem.
  - To get to some of the FEBs we would have to remove the roof. Fortunately, the problematic FEB is FEB 5 in the chain and was not one the FEBs that we need to remove the roof for.

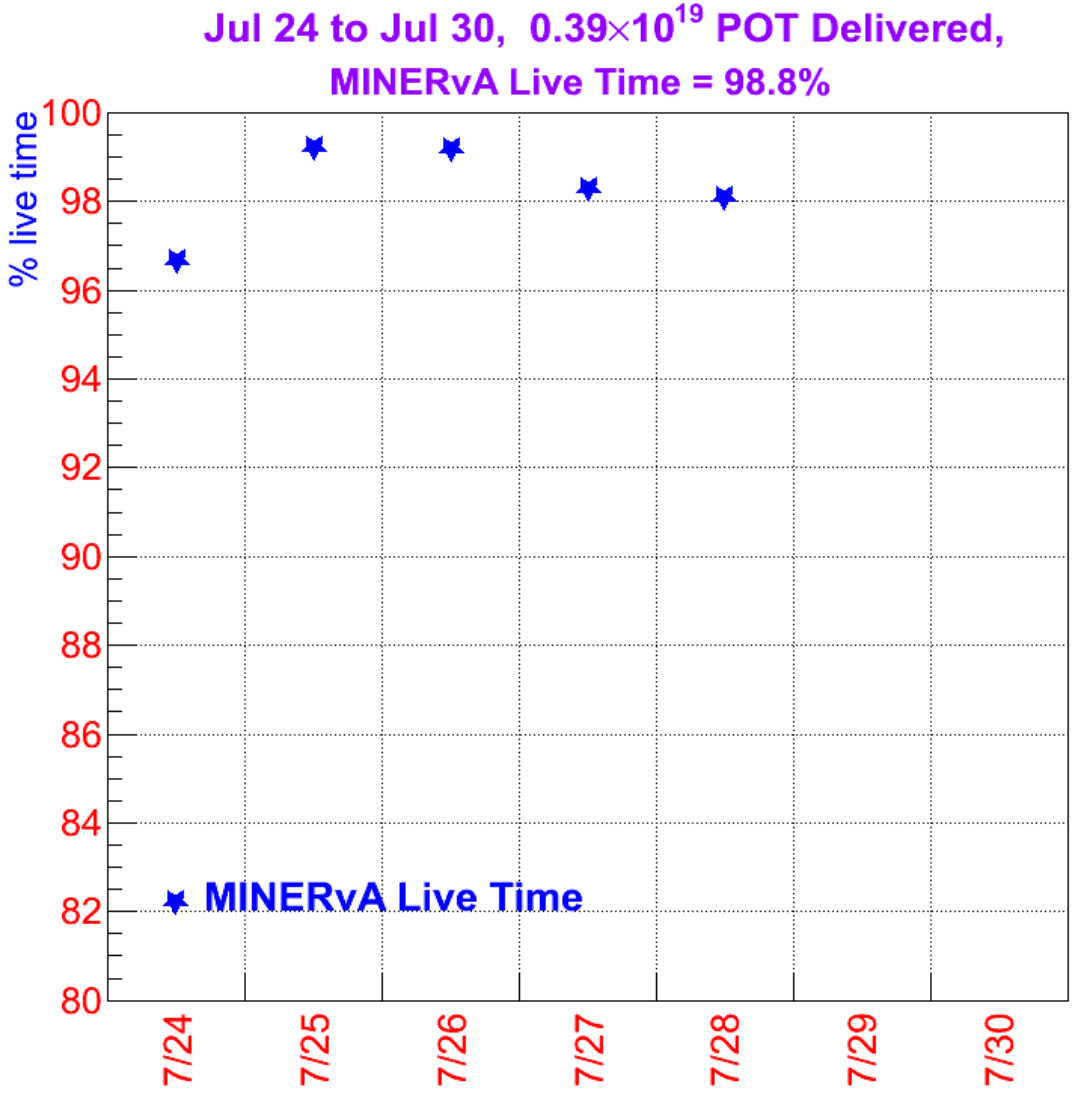
UPS Power Glitch

- While we are trying to investigate the failing FEB, the UPS (Uninterrupted power supply) glitched the VETO rack, causing the DAQ computers to restart. All the lights in the VME Veto HV power supply turned red. The red “replace battery” light on the UPS turned on.
- Although the UPS was still supplying power to the computers, we decided to remove it from the system. The power to the PDU was plugged into the AC power strip. The UPS is still in the rack and will have to be removed during the September shutdown.
  - Note it weighs ~ 100 lbs, but we have a procedures to do this safely.
  - Thanks to Linda Bagby for her help.

Veto Wall HV

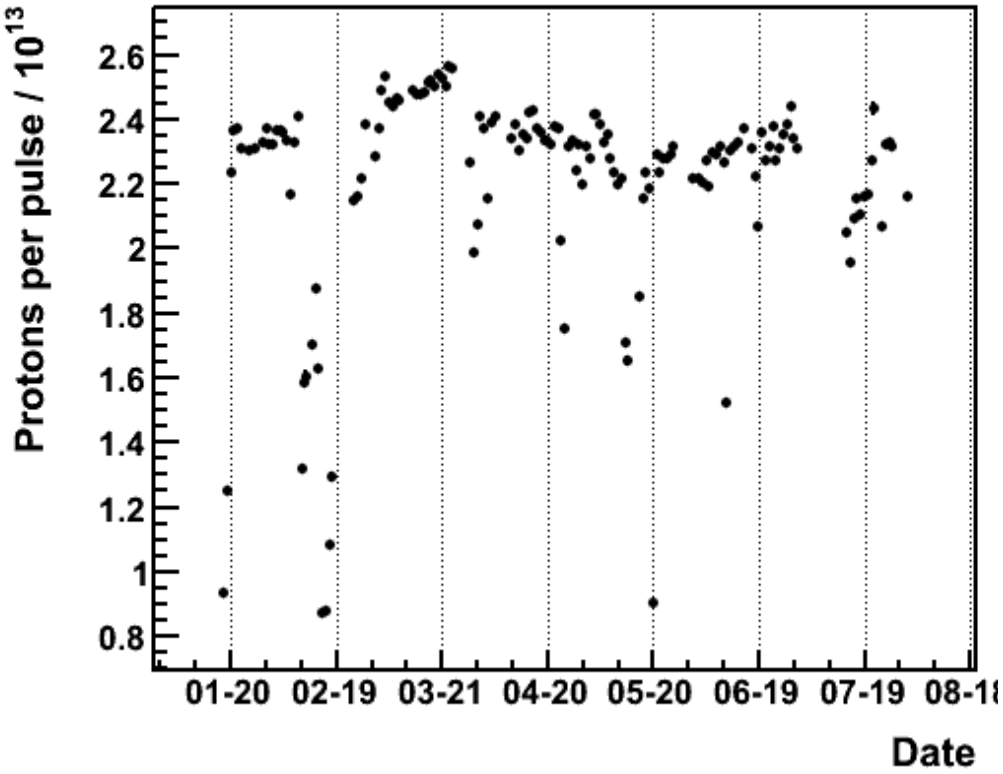
- Currently, veto wall high voltage monitoring and control is done using one of the computers on our Hot Spares rack.
  - We lost that computer as a result of last week power glitch. We are currently trying to recover the files from that computer.
- Geoff Savage is preparing to use 1 of the 2 new computers in the DAQ rack as the computer for the VETO HV. He is doing tests on this now. When this is ready he will need to do some mods to the computer in the DAQ rack.
- He will then need to power cycle the VME crate, which will power cycle our DAQ computers; 0,1 & master.

July 24. to July 30. Live Time

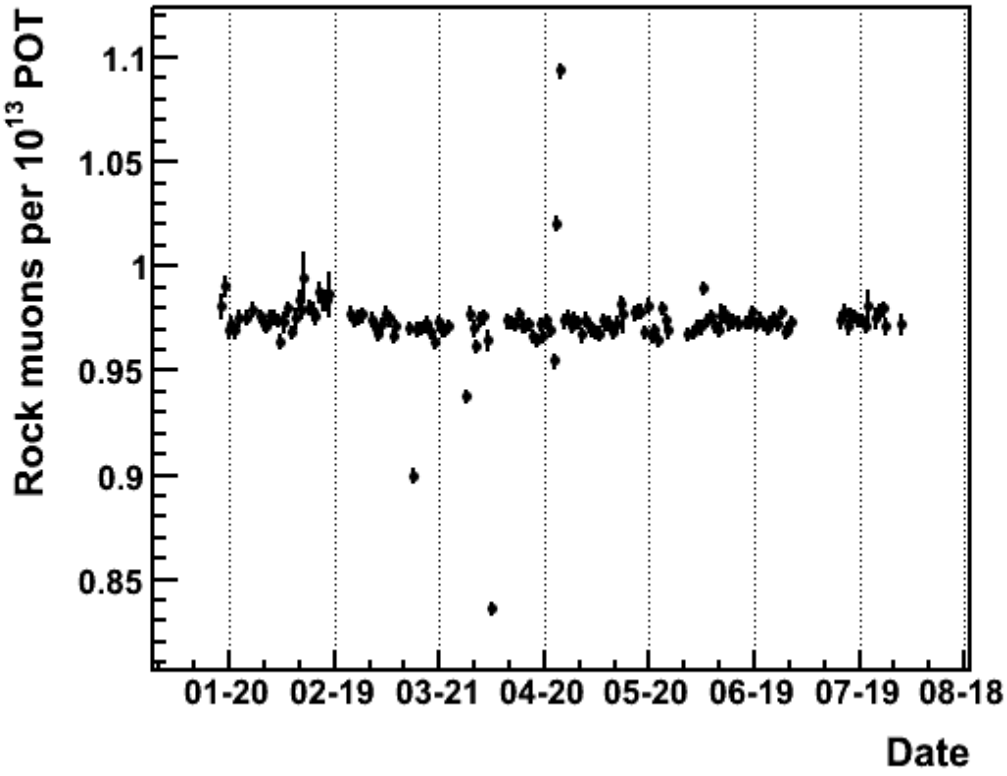


- **Live time: 98.8%**
- About 15 minutes downtime to swap an FEB on July 24th
- No beam on July 29th and July 30th

Rock Muons

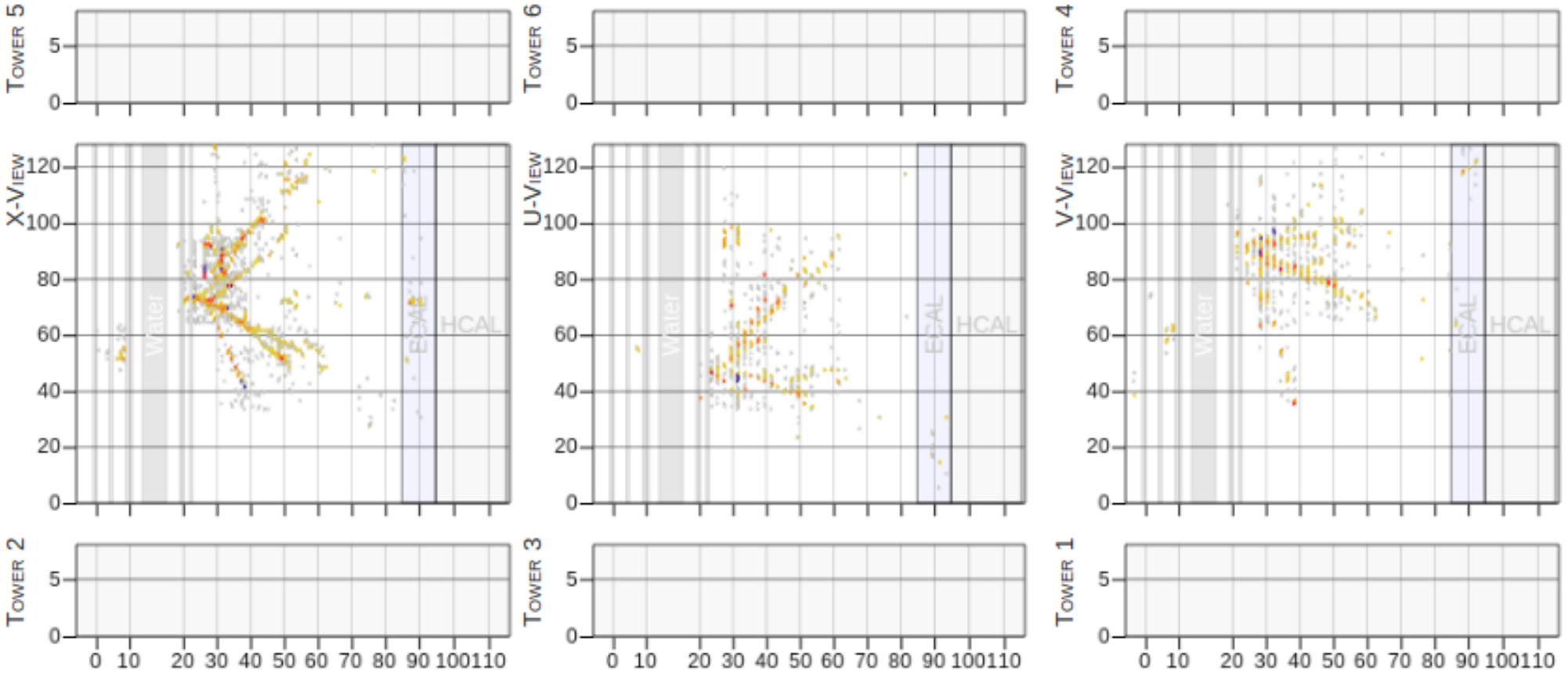


POT Pulse



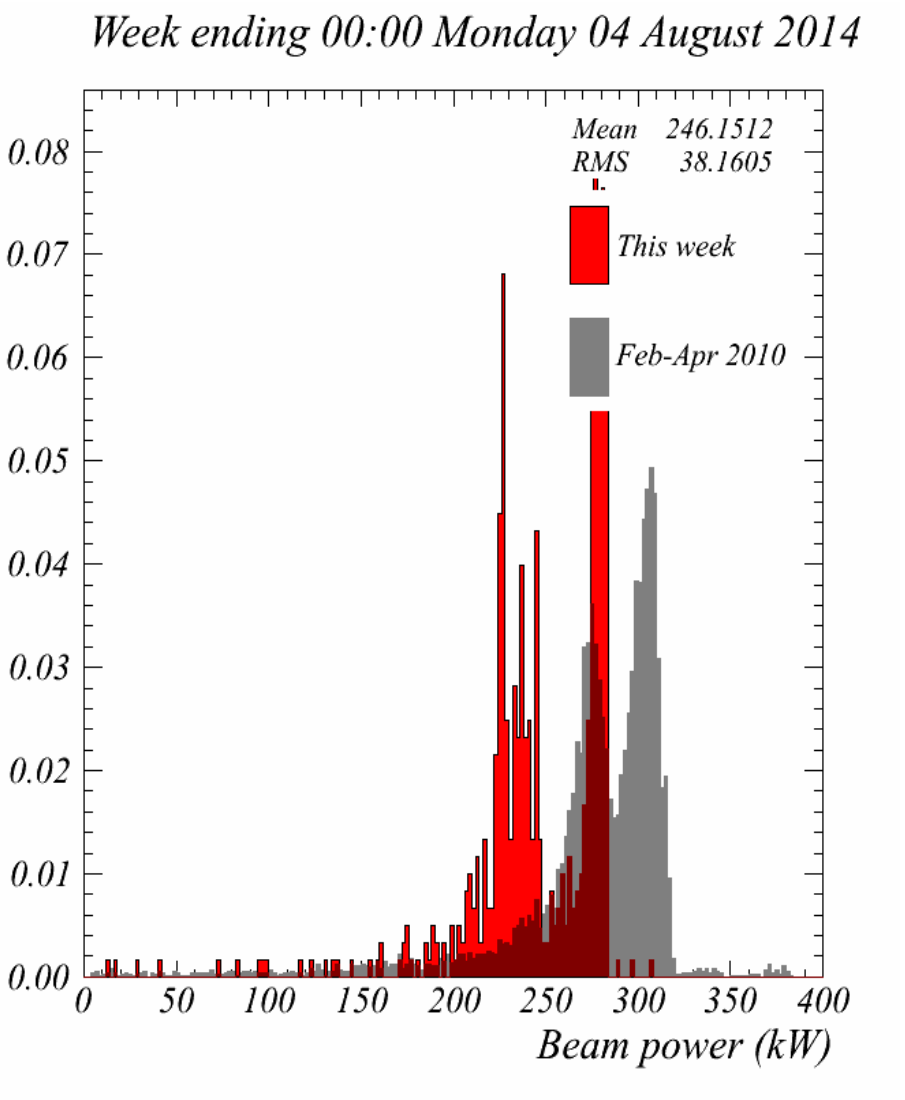
Rock Muons/POT

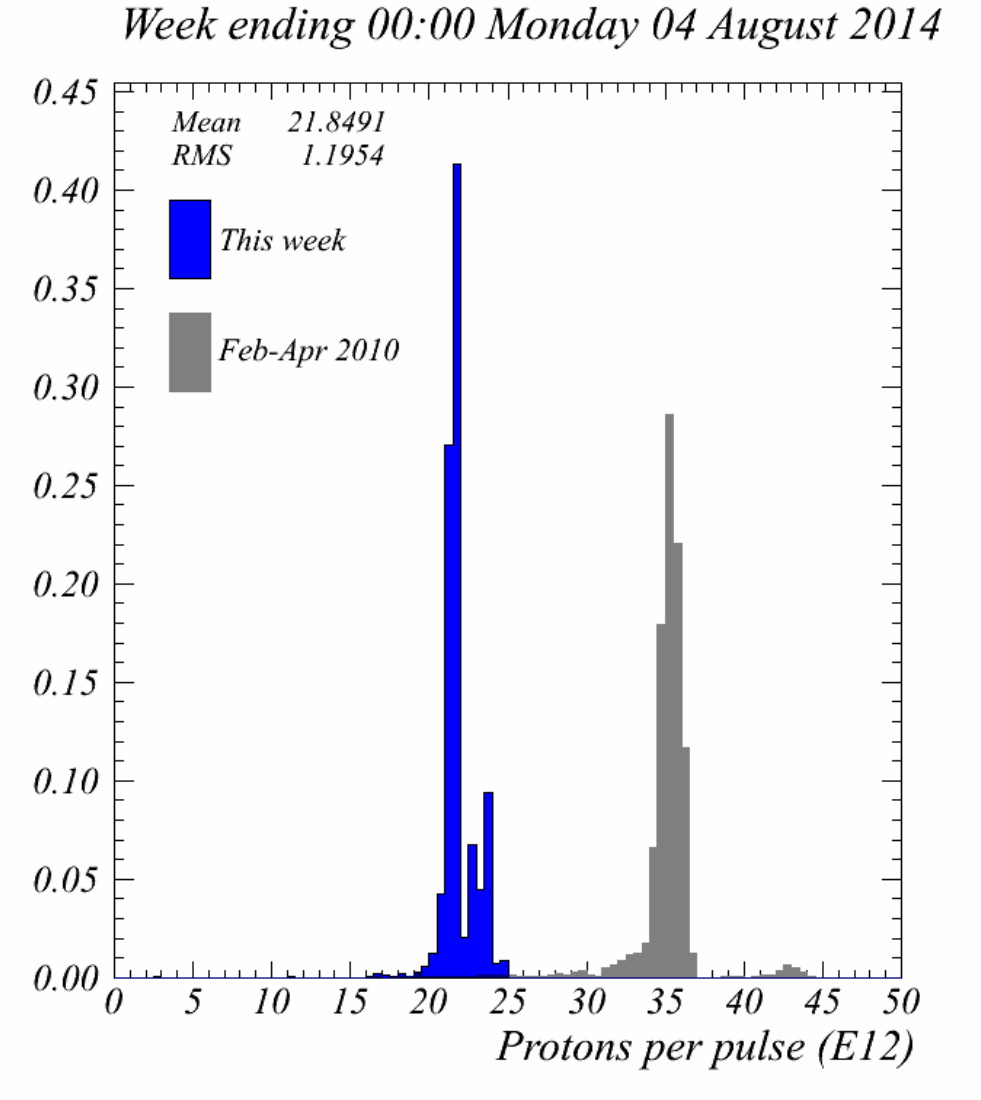
Event Display



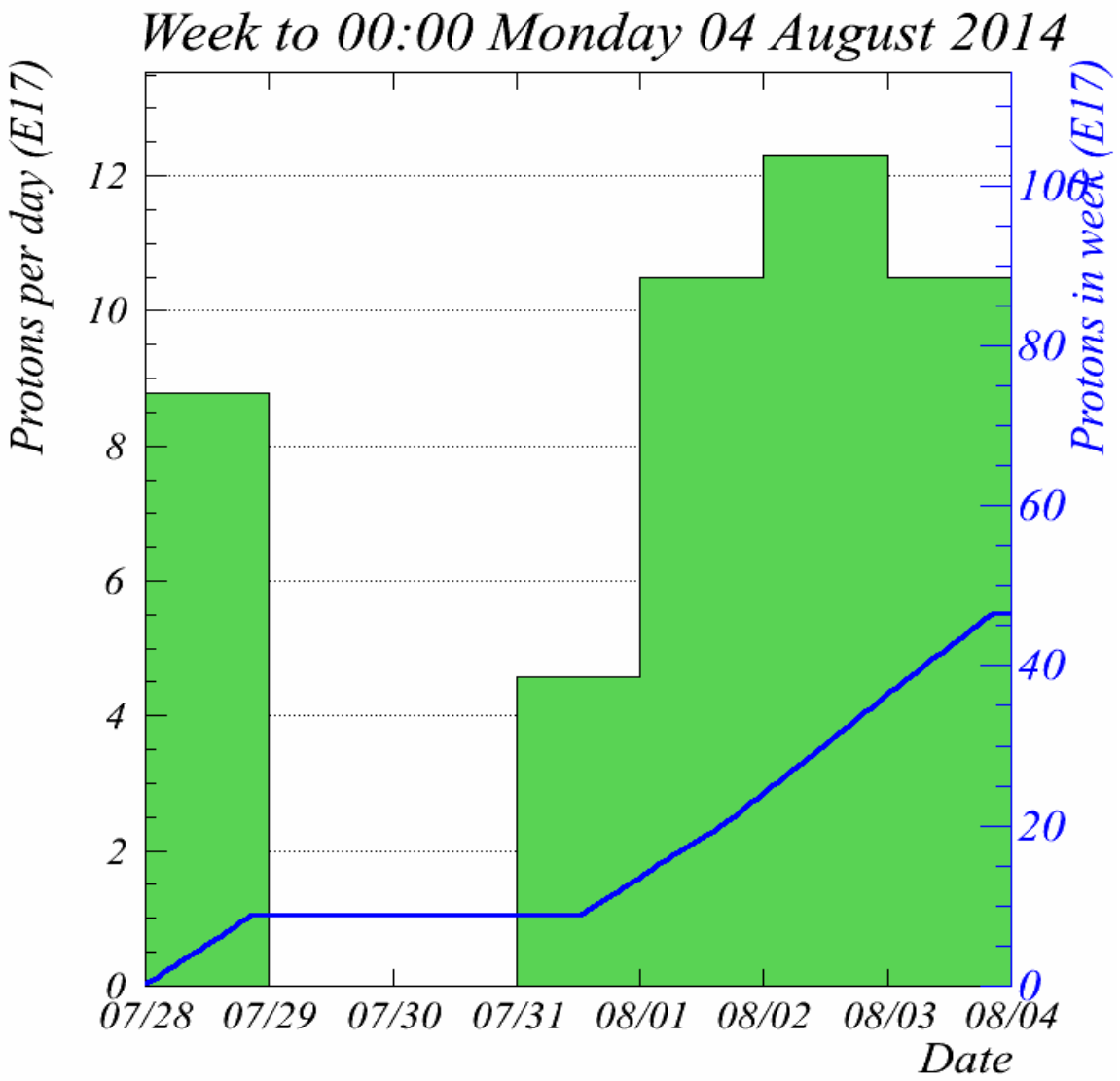
Nuclear Target 5 Event

Numi Beam Plots



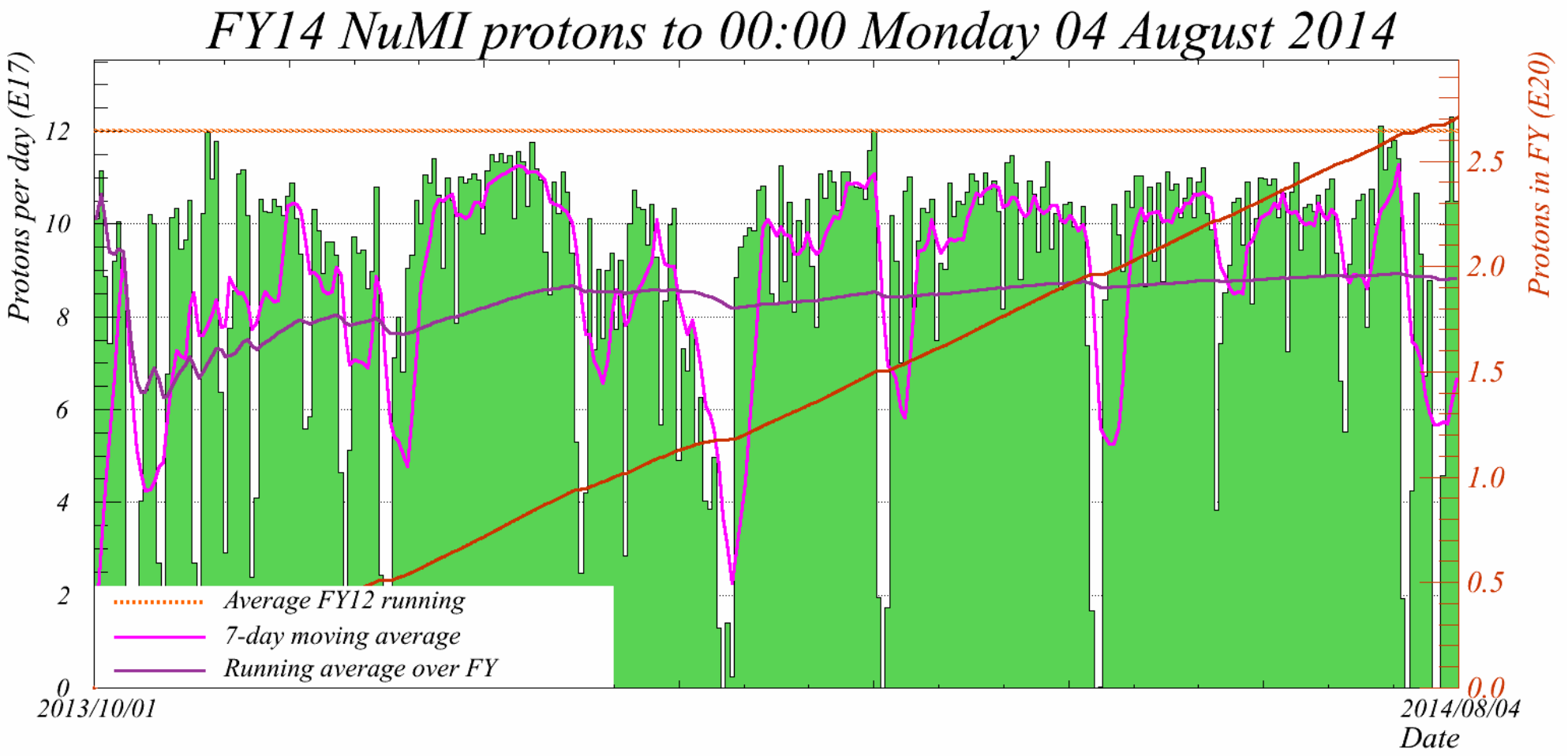


Protons of The Week



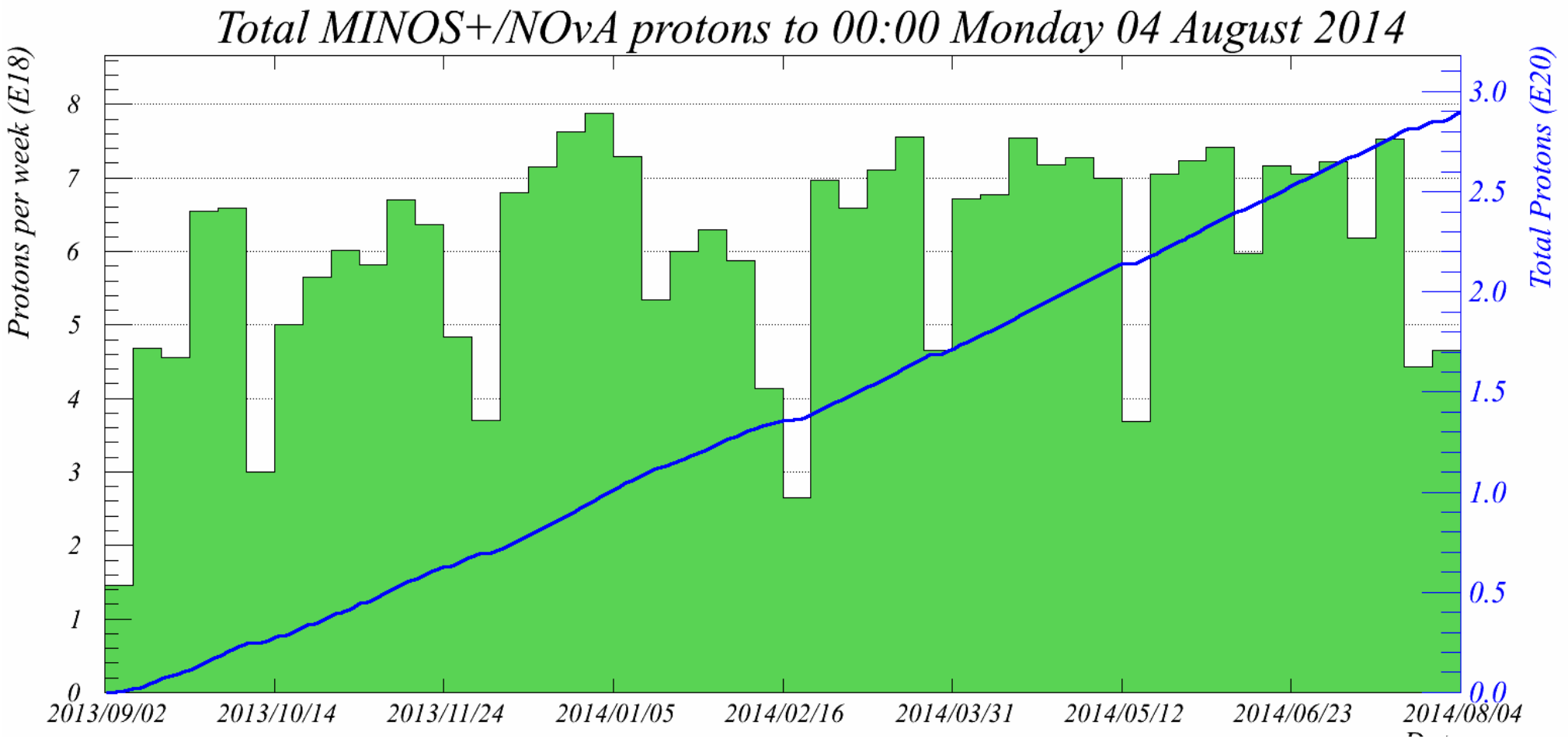
5.33×10^{18} POT
July 28 – August 4, 2014

FY2014 Protons



27.1x10^{19} POT
Oct 1, 2013 – August 4, 2014

Protons for ME Run



28.9x10^{19} POT
Sept 6,2013 – August 4, 2014